

Instructions to submit data to the Seabird Tracking Database (STDB)

Data standardisation is crucial to building and maintaining a useful database. As part of the BirdLife Seabird Tracking Database work we have a number of automated filtering and analysis methods that facilitate standardisation of data inputs and outputs, minimising the time required for database maintenance and maximising our conservation impact.

We therefore ask all Data Contributors to follow the instructions below when preparing data to submit to the STDB.

Information stored in our database is organized into two levels – “Dataset” level and “Data points” level. The “dataset level” metadata are provided by filling an online form, and the “data points” level of information is submitted by uploading a csv file.

We provide an excel file (“Template_Datapoints.xlsx”) with a template, field descriptions and several examples (depending on the type of device used – GPS, PTT or Geolocators [GLS]). You can simply copy-paste the appropriate template to another excel spreadsheet and, after replacing with your data, save the file as .csv (comma delimited values).

In case of **GLS data**, please submit only cleaned, equinox-filtered data.

In case of **high-resolution GPS data**, please sub-sample your data to 2-minute resolution (or lower, e.g. 5 minute resolution) if possible. This level of sampling frequency is usually enough for the conservation applications that are the main focus of the STDB, and reducing the size of super-large datasets helps with our processing times and maintenance.

Please note that there is a file size upload limit of 40 MB. If your files are larger, please consider down-sampling the data or splitting the data up into multiple datasets. Please contact us if you require assistance with this.

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Dataset level

The “**dataset level**” provides the info associated with each dataset (i.e., any set of data that were collected for a given species, in a given colony, with a given type of device and are owned by the same group of contributors).

- **Co-owners:** name all the people who own the data (important note: all data owners should be registered in our website before submitting the data, otherwise it will not be possible to associate their names to the dataset);
- **Dataset name:** the title that will be associated to the dataset in the website (example: *Arctic Tern from Greenland, GLS, migration 2007-08*);
- **Species:** chosen from a dropdown menu with a list of seabird species (following BirdLife taxonomy <http://www.birdlife.org/datazone/info/taxonomy>);
- **Deployment Location (Country/Site/Colony):** a list of colonies already registered before in our database will be available. If none fits, you can add a new one;
- type of **Device** used: GPS, PTT or GLS;
- **interpolation:** if the data submitted have been interpolated (e.g. to obtain regular fixes);
- **Permissions:**
 - o **Pre-approvals:** how do you prefer to handle “conservation-related” data-requests. Data-owners are asked to specify if:
 - they agree with BirdLife deciding about the use of the data for all conservation-related uses, independently of who is making the request (in this case, data-owners will receive only a notification of the request); Option: “all conservation-related requests (BirdLife and non-BirdLife) are pre-approved”;
 - they agree with BirdLife using the data for its own conservation-related uses (i.e. the request is being made by BirdLife, and data will be processed only within BirdLife partnership, so no data will be shared with any third party; data-owners will receive only a notification of the request); Option: “all BirdLife conservation-related requests are pre-approved”;
 - if they want to maintain the final decision about the use of their data in all situations. Option: “no pre-approvals”;
 - o **Data-requests:** by default, data submitted to the STDB can be requested by a third party (i.e., by another researcher in a collaborative study), although no data will be provided without the consent of the contributor. Contributors will be always contacted by e-mail when their data is being requested. Nevertheless, contributors may choose to have their data as “non-requestable” by others than BirdLife;
 - o **Links to other databases:** by default, the metadata may be shared with other databases, unless you express otherwise;
- **Visibility:** by default, your data will be viewable in the website as individual tracks, with no zoom limit, but you can also opt for other options (viewable as individual tracks, zoom to data scale; viewable as dataset map, no zoom limit; viewable as dataset map, zoom to data scale; only as a metadata entry);
- **Aux files:** whether there is other files (images, videos, time depth records files, etc) associated with the data. If yes, please provide the name of the files in the field “notes”
- **Notes:** Please give us any other relevant details related with your dataset (e.g.: if the data being upload have been processed in any special way, as using state space models for GLS data).

Data points level

The “**data points**” level is where the actual data (birds’ positions at a date-time) are stored (see the template .xlsx file for examples of data from each type of device):

- **BirdID:** unique identification of each individual bird (e.g. ring number, or simply bird1, bird2)
- **Sex:** sex of the individual bird specified in the previous column; one of the following options are accepted – *male; female; unknown*
- **Age:** age of the individual bird specified in the first field; one of the following options are accepted – *adult; immature; juvenile; fledgling; unknown*
- **Breed stage:** the breeding stage of the bird; options are *pre-egg; incubation, brood-guard; post-guard; chick-rearing; creche; breeding; fail (breeding season); migration; winter; sabbatical; pre-moult; non-breeding; unknown.*

Please provide the most detailed level possible (example: if known, specify which positions were collected during *incubation, brood-guard* and *post-guard*; alternatively split only between *incubation* and *chick-rearing*; if not even this is known, tag all as *breeding*).

Ideally, the classification should be based on the knowledge of actual breeding stage of each individual tracked at each time (e.g. a non-breeding adult tracked during incubation period should be included as *sabbatical, fail (breeding)* or simply as *non-breeding*).

Nevertheless, we acknowledge that such information is often missing, so if that is the case the classification can also be based on mean life history schedules of the population (e.g. all positions gathered during incubation would be tagged as so).

- **TrackId:** unique identification of each trip of each bird (ex: bird1_t1, bird1_t2, bird1_t3, bird2_t1). This should correspond to unique foraging trips (i.e. all at-sea positions collected between two successive returns to the colony – that may also apply to the entire non-breeding period). If these have not yet been identified, simply set TrackID=BirdId
- **DateGMT:** date (GMT) in the following format: *dd/mm/yyyy*
- **TimeGMT:** time (GMT) in the following format: *hh:mm:ss*
- **Latitude:** in decimal degrees
- **Longitude:** in decimal degrees
- **Equinox** (only for GLS data): whether the position correspond to an equinox period or not
- **ArgosQuality** (only for PTT data): quality of the position; one of the following options are accepted – 3; 2; 1; 0; A; B; Z

Contact

If you need any further help please do not hesitate in contacting us by e-mail to seabirds@birdlife.org or to bethany.clark@birdlife.org

Thank you for contributing your data to the Seabird Tracking Database!

The BirdLife International Marine Science Team